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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,831	03/30/2004	Takayuki Nakamura	042310	3046

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EXAMINER

RODRIGUEZ, PAUL L

ART UNIT PAPER NUMBER

2125

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/811,831

Applicant(s)

NAKAMURA, TAKAYUKI

Examiner

Paul L. Rodriguez

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The amendment filed 8/3/05 has been received and considered. Claims 1 and 2 are presented for examination.

#### ***Drawings***

2. The drawing submitted 8/3/05 has been accepted.

#### ***Claim Objections***

3. Claim 1 and 2 are objected to because of the following informalities:

Claims 1 and 2 use the acronyms "NC" and "CL" without defining in the claim, while the specification provides a definition of the acronyms, the use in a claim could render the claim indefinite, to avoid any possible misinterpretation, the acronyms should be defined in the claim.

Claim 1 line 24 states "...among the cutting tools the data of which is..." the insertion of a "," would provide claim clarification so that it could read "...tools, the data of which..."

Claim 1 lines 26-27, recites "the minimum curvature radius", term not previously recited, could create an antecedent problem in the claim, would be better as "a minimum..." While applicant has argued that the amendment to "a minimum..." is not required because "it is inherent that a concave surface has a minimum curvature radius" and "being inherent features) is not necessary to establish their antecedent bases". The Examiner maintains the objection because while it may not be necessary to establish antecedent basis, an amendment to the claim would obviate any possible antecedent questions.

Claim 1 lines 27-28, recites "the minimum distance", term not previously recited, could create an antecedent problem in the claim, would be better as "a minimum..."

Claim 1 line 39, recites "the descending order", term not previously recited, could create

Art Unit: 2125

an antecedent problem in the claim, would be better as “a descending order”.

Claim 1 lines 39-40, recites “the maximum diameter”, term not previously recited, could create an antecedent problem in the claim, would be better as “a maximum diameter”.

Claim 1 line 40 recites “the used of...”, would be better as “the use of” or “a use of”.

Claim 1 line 45, recites “the minimum machining time”, term not previously recited, could create an antecedent problem in the claim, would be better as “a minimum...”

Claim 2 line 3 refers to “said tools”, reference should remain consistent, should recite “said cutting tools” to remain consistent.

Claim 2 line 6 refers to “the outside”, would be better as simply “outside”, term not previously recited, could create an antecedent problem in the claim. While applicant argues that “it is inherent that the CL data generating section has an outside”, “an ‘outside’ is inherent” and “the claim of ‘an outside’ is not necessary”. The Examiner maintains the objection because while it may not be necessary to establish antecedent basis, an amendment to the claim would obviate any possible antecedent questions.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 recites the limitation “the machining time” in line 30. There is insufficient antecedent basis for this limitation in the claim. The term “the” is similar to the term “said” in

Art Unit: 2125

that it provides a positive recitation of the related term. Would be better as “a machining time” at the first use of the term.

6. Claim 2 recites the limitation "said tool groups" in line 6. There is insufficient antecedent basis for this limitation in the claim. Previously the claim recites “groups into a local group”, therefore there is only one group, not plural groups.

***Response to Arguments***

7. Applicant's arguments filed 8/3/05 have been fully considered but they are not fully persuasive.

While the applicant argues that the use of acronyms such as NC and CL, while defined in the specification clarify the meaning in the claims the Examiner maintains an objection and request to spell out the acronyms in the claims to avoid any possible question as to their meaning to avoid any possible indefiniteness in the claim.

While applicant argues that the use of terms the minimum curvature radius, the minimum distance, the maximum diameter, the outside should not be considered indefinite because of their inherent nature and would not be required to indicate as “a minimum curvature radius”, “a minimum distance”, “a maximum diameter” and “an outside” because it would not be necessary to establish antecedent support. The Examiner maintains an objection to use of these terms due to the current scrutiny placed upon the Examiners by the Patent office. Also, because the applicant has already stated that these terms, whether recited with “a” or “an” instead of “the” is not required due to their inherent nature, then any amendment to change “the” to “a” or “an” should not be opposed by the applicant because as argued, the terms are not different.

8. Applicant's arguments, regarding the art rejection, filed 8/3/05, have been fully considered and are persuasive. The rejection of claims 1 and 2 under the 102(e), in view of Teramoto et al, has been withdrawn. Arguments directed to the art rejection under Teramoto et al are persuasive and the rejection is withdrawn.

***Allowable Subject Matter***

9. Claims 1 and 2 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

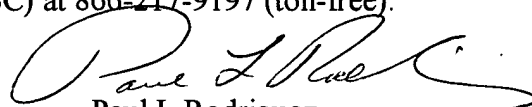
Art Unit: 2125

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul L. Rodriguez whose telephone number is (571) 272-3753.

The examiner can normally be reached on 6:00 - 4:30 T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul L Rodriguez  
Primary Examiner  
Art Unit 2125

PLR  
9/2/05